

**REMARKS**

This application has been carefully considered in connection with the Final Office Action dated July 28, 2006. Reconsideration and allowance are respectfully requested in view of the following.

**Summary of Rejections**

Claims 1-29 were pending at the time of the Office Action.

Claims 1-13 and 20-29 were objected to for informalities.

Claims 1-13 and 20-29 were rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 14, 20, and 24 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-11, 13-26, 28, and 29 were rejected under 35 USC § 102(b) as being anticipated by "Mid-Tier Caching: The TimesTen Approach" (TimesTen).

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over "Mid-Tier Caching: The TimesTen Approach" (TimesTen).

Claim 27 was rejected under 35 USC § 103(a) as being unpatentable over "Mid-Tier Caching: The TimesTen Approach" (TimesTen) in view of U.S. Patent No. 6,901,383 to Ricketts, et al (Ricketts).

**Summary of Response**

Claims 1, 14, 20, 24, and 27 were amended.

Claims 2-13, 15-19, 21-23, 25, 26, 28, and 29 remain as originally submitted or previously presented.

Remarks and Arguments are provided below.

### **Summary of Claims Pending**

Claims 1-29 are currently pending following this response.

### **Interview Summary**

A telephone interview was conducted with Examiner Brent Stace and Elizabeth Pham on September 13, 2006. Applicant would like to thank Examiner Stace for his time and consideration in this matter. Independent Claims 1, 14, 20, and 24 were discussed in view of the TimesTen reference. The discussion included an assessment that the TimesTen reference teaches the use of an in-memory database system to apply rules to cached data. By contrast, the present application teaches the monitoring of an in-memory database system and the application of rules to cached data without the involvement of the in-memory database system or the application. Applicant has amended independent Claims 1, 14, 20, and 24 to further emphasize this distinction. The Examiner stated that an additional art search would have to be conducted and that unless a reference is found which discloses the present invention, the pending claims would be allowable.

### **Informality Objections**

Claims 1-13 and 20-29 were objected to because of the phrase "operable on one or more computer systems". As suggested by the Examiner during the interview, Applicant has amended

independent Claims 1, 14, 20, and 24 to recite that the methods and systems of these claims are "stored on a computer readable medium". Accordingly, Applicant respectfully requests withdrawal of this rejection.

### **Rejections under Section 101**

Claims 1-13 and 20-29 were rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.

During the interview, the Examiner stated that amending Claims 1, 14, 20, and 24 to recite that the methods and systems of these claims are "stored on a computer readable medium" would remove this rejection. Applicant has amended the claims as suggested by the Examiner and respectfully requests withdrawal of this rejection.

### **Rejections under Section 112, Second Paragraph**

Claims 1, 14, 20, and 24 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action suggested that the claims are unclear because the phrase "outside of the application" can apply to the engine or the cached data. By the above amendments, Applicant has amended Claims 1, 14, 20, and 24 to remove this phrase from the claims. Accordingly, Applicant respectfully requests withdrawal of this rejection.

**Rejections under Section 102**

Claims 1-11, 13-26, 28, and 29 were rejected under 35 USC § 102(b) as being anticipated by "Mid-Tier Caching: The TimesTen Approach" (TimesTen).

Claim 1 has been amended to recite, "wherein the engine monitors the in-memory database system and applies the rule to the cached data without the involvement of the application or the in-memory database system."

TIMESTEN is a commercial off-the-shelf (COTS) in-memory database management system (IMDBMS) that provides the ability to automatically propagate updates from the cache to the back-end database, as well as the ability to automatically propagate updates from the back-end database to the cache. (Page 591, second column, first full paragraph.) By contrast, the present application discloses an engine that applies application-specific rules to cached data without the involvement of the IMDBMS or even the application itself.

An IMDBMS and an application have very different roles with regard to cached data. This distinction is stated, for example, in Paragraphs [0020] and [0021] of the present application as follows:

[0020] IMDBMSs store data in memory, such as in random access memory but may also include disk memory in some cases or for some portions of the data, which may be referred to as caching the data. It is the role of the IMDBMS software to keep cached data synchronized across multiple application platforms so that all application servers using the cached data see the same data values as the data is accessed. The IMDBMS software, however, may not know or be operable to implement the specific requirements of enterprise applications for refreshing or otherwise managing cached data or removing data from cache.

[0021] For example, a customer data object may be of use to an application for a specific period of time, such as 30 minutes or less. In some instances, it is efficient to retain the customer data object in cache, but the application should remove the customer data object from cache after this 30 minute period expires. It is inefficient and perhaps impossible in some instances, however, for the application to implement these application specific data cache management rules.

Therefore, the IMDBMS of TIMESTEN does not address the problem of the inefficiencies associated with application-specific rules being implemented by the applications themselves, a problem that is solved by the present application. Paragraph [0039] of the present application, for example, states:

[0039] ... the second rule engine 28 identifies cached data with the associated rule type. After identifying the cached data and the rule type, the second rule engine 28 applies the rule to the related data, thereby implementing the application 11a specific rule outside of the IMDBMS 20. It can be seen that this functionality provides implementation of application 11a specific rules without the inefficiencies associated with these rules being implemented by the application 11a. In addition, the present embodiment provides cache management of data functionality not provided by the IMDBMS 20, which promotes greater efficiency throughout the system. (Emphasis added.)

To further emphasize the fact that the present application teaches implementing the rules without the involvement of the application or the IMDBMS, Applicant has amended Claim 1 to recite, "wherein the engine monitors the in-memory database system and applies the rule to the cached data without the involvement of the application or the in-memory database system."

As established by Paragraph [0039] above, the system and method of the present invention are designed to be used in conjunction with IMDBMS COTS packages, such as TIMESTEN. Paragraph [0036] of the present application, for example, states, "Examples of IMDBMS COTS packages that are compatible with the present disclosure are TIMESTEN and VERSANT."

Accordingly, Applicant respectfully submits that TIMESTEN does not teach or suggest an engine operable to monitor the in-memory database system and apply the rule to the cached data without the involvement of the application or the in-memory database system.

Similarly, independent Claims 14, 20, 24, and 27 also have been amended to recite that the monitoring of the in-memory database system and the application the rule to the cached data occur without the involvement of the application or the in-memory database system.

Dependent Claims 2-11, 13, 15-19, 21-23, 25-26, and 28-29 depend directly or indirectly from independent Claims 1, 14, 20, and 24 and incorporate all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that Claims 1-11, 13-26, and 28-29 are not anticipated by TimesTen and respectfully request allowance of these claims.

### **Rejections under Section 103**

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over "Mid-Tier Caching: The TimesTen Approach" (TimesTen).

Claim 12 depends directly from independent Claim 1 and incorporates all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that Claim 12 is not obvious in light of the suggested combination and respectfully requests allowance of this claim.

Claim 27 was rejected under 35 USC § 103(a) as being unpatentable over "Mid-Tier Caching: The TimesTen Approach" (TimesTen) in view of U.S. Patent No. 6,901,383 to Ricketts, et al. (Ricketts).

Claim 27 depends directly from Claim 24 and incorporates all of the limitations thereof. Accordingly, for the reasons established above, Applicant respectfully submits that Claim 27 is not obvious in light of the suggested combination and respectfully requests allowance of this claim.

### **Conclusion**

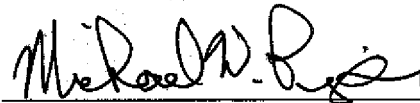
If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,

Date: \_\_\_\_\_

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